

Abstract

An electrical component (5) is proposed, in particular a high-frequency microelectronic or microelectromechanical component having a base element (10) that is provided with a feedthrough (13), a first conductive structure (11) extending on an upper side (21) of the base element (10) being connected by the feedthrough (13), continuously for high-frequency electromagnetic waves, to a second conductive structure (12) extending on a lower side (20) of the base element (10). The feedthrough (13) has the form of a right prism or cylinder, and the first and/or the second conductive structure (11, 12) is embodied as a planar waveguide, in particular as a coplanar waveguide. Also proposed is a method for producing an electrical component (5) having a feedthrough (13) for high-frequency electromagnetic waves through a base element (10), an electrically conductive layer being applied on an upper side (21) of the base element (10) and an etching mask being applied on a lower side (20) of the base element (10); a trench (14), having at least almost perpendicular sidewalls and penetrating through the base element (10), then being etched into the base element (10) in a plasma etching step; an electrically conductive layer being applied on the lower side (20) after the etching and after removal of the etching mask; and the trench (14) lastly being filled or lined with an electrically conductive material.

(Figure 14)